

## LOCK DETECT INDICATOR FOR A PHASE LOCKED LOOP

### Abstract

A lock detect indicator capable of dynamically determining whether a phase locked loop is in lock or out of lock is provided. The lock detect indicator uses pulses on the fast and slow signals generated by a phase-frequency detector of the phase locked loop to determine if the phase locked loop has been continuously trying to speed up or slow down itself for a predefined amount of time, in which case, the lock detect indicator indicates that the phase locked loop is out of lock. Further, a lock detect indicator capable of indicating whether a phase locked loop previously went out of lock is provided. Further, a method for detecting whether a phase locked loop is out of lock or in lock is provided.

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